

REMARKS

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated December 9, 2005, claims 1-30 are pending in the application. Applicants respectfully request the Examiner to reconsider the rejections.

The specification stands objected to because the related applications are not listed. A corrected version of the related applications section is set forth herein.

Claims 1-30 stand objected to for various informalities including that the claims are not numbered and the words brake-steer have not been used consistently. Applicants corrected the claims to include "brake-steer" as the preferred method. With respect to the claims not being numbered, Applicants respectfully submit that the claims have been electronically filed and the numbering has been automatically performed by the system. Applicants have entered the Private PAIR system and found the claims to be numbered by various numbers including [c1] ... [c30]. This is the proper method inserted by the Patent Office's methods and therefore, Applicants believe that this objection has been overcome.

Claims 1-7, 9-19, 21-26, and 28-30 stand rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner states that there are no claim numbers and therefore the dependent claims have dependencies to claims that do not exist. Applicants respectfully submit that the claims were submitted with claim numbers as described above and therefore this rejection has been overcome.

Claim 1 has been cited by the Examiner as being indefinite at lines 6-9. Applicants have amended Claim 1 to overcome this rejection.

Claims 1-30 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Matsuno* (2001/0020217). Applicants respectfully traverse.

Claim 1 recites a control system for an automotive vehicle that includes an object detection system that generates an object detection signal and an object distance signal. A controller is coupled to the object detection system and is programmed to generate a brake-steer signal proportional to the object distance signal in response to the object detection signal and the object distance signal. The controller is also programmed to control the vehicle in response to the brake-steer signal. Applicants admit that the *Matsuno* reference has an object detection system. The *Matsuno* reference is used to help avoid an obstacle. The Examiner points to page 3, line 33, for a controller that is programmed to generate a brake-steer signal proportional to the object distance signal. Applicants respectfully submit that this element is not

set forth in the *Matsuno* reference. The *Matsuno* reference is used to calculate a distance that is used to judge whether or not the vehicle is going to hit an object. There is no teaching for controlling brake-steer proportional to the object distance signal. In paragraph 33 of page 3, and subsequent paragraphs, the system determines a targeting braking force that is used to help avoid the object. The target braking source is set forth in Equation 10. Equation 10 depends upon the tread of the vehicle and the target moment. However, there is no teaching in paragraph 33 or the subsequent paragraph for generating a brake-steer signal proportional to the object distance signal. The paragraph corresponding to step S106 is enlightening. In this section the brake distance is judged and compared but the braking is not proportional to the distance. The distance is merely used to determine whether or not a collision is to take place. Applicants therefore respectfully request the Examiner to reconsider the rejection since each and every one of the elements is not set forth in the *Matsuno* reference. Claim 8 includes a similar limitation and is therefore believed to be allowable for the same reasons set forth above with respect to Claim 1.

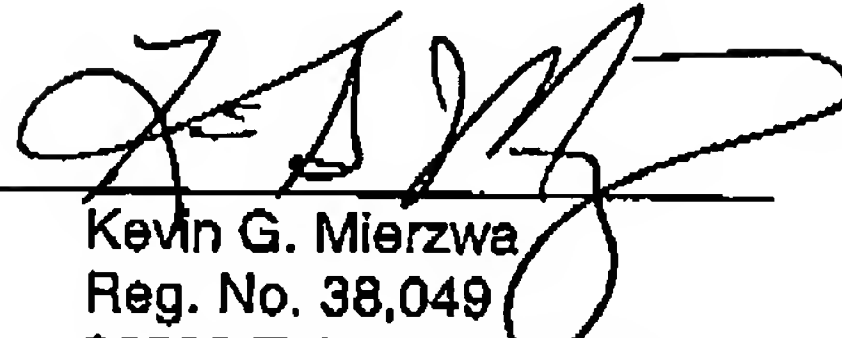
Claim 20 is another independent claim directed to a method of controlling an automotive vehicle. Claim 20 recites the step of generating a brake-steer signal proportional to object distance signal in response to the objection detection signal and the object distance signal. This is a similar limitation to those of Claims 1 and 8 and therefore, Claim 20 is also believed to be allowable.

Claim 27 recites generating a brake control signal proportional to the object distance signal in response to the object position signal and the object distance signal. As mentioned above, this is not taught or suggested in the *Matsuno* reference. Applicants therefore respectfully request the Examiner to reconsider this rejection as well.

Likewise, the dependent claims are also believed to be allowable for the same reasons set forth above.

In light of the above amendments and remarks, Applicants submit that all objections are now overcome. Applicants respectfully submit that the application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any further questions or comments please contact the undersigned.

Respectfully submitted,



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Date: 3/1/06

Brake assisted vehicle steering - has steering lock sensor with automatic proportional control for brake force of curve inner wheel

Patent number: DE4224887
Publication date: 1993-09-30
Inventor: HERING HUBERT (DE); BAEURER ULRICH (DE)
Applicant: DEERE & CO (DE)
Classification:
- International: B60T8/24; B60T11/21; B62D11/08; B60T8/24;
B60T11/16; B62D11/06; (IPC1-7): B62D11/08;
B60T8/32; B60T11/21; B62D15/02
- european: B60T8/24; B60T11/21; B62D11/08
Application number: DE19924224887 19920728
Priority number(s): DE19924224887 19920728

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Abstract of DE4224887

The utility vehicle has selective brake steering either via separate brake pedals (46, 48) or via an automatic system. The system has a controller (24) which monitors the steering lock and which provides a proportional control for either rear wheel brake, depending on the direction of steering. The automatic system is switched on by a selector switch (66) to allow normal travel on roads. The max. brake force is limited to prevent wheel lock. During automatic brake steering, the locking effect of the rear differential is inhibited. USE/ADVANTAGE - Partic. for industrial and agricultural vehicles. No driver skill required, automatic control, min. risk of ground damage.

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Hydraulic steering brake installation for vehicle.

Patent number: DE3625025
Publication date: 1987-10-15
Inventor: MICKE SIGMAR; JOSEF PICKENHAHN; CAMPBELL ROY
Applicant: LUCAS IND PLC
Classification:
- International: B62D11/08; B62D11/06; (IPC1-7): B62D11/08
- european: B62D11/08
Application number: DE19863625025 19860724
Priority number(s): DE19863625025 19860724

Also published as:

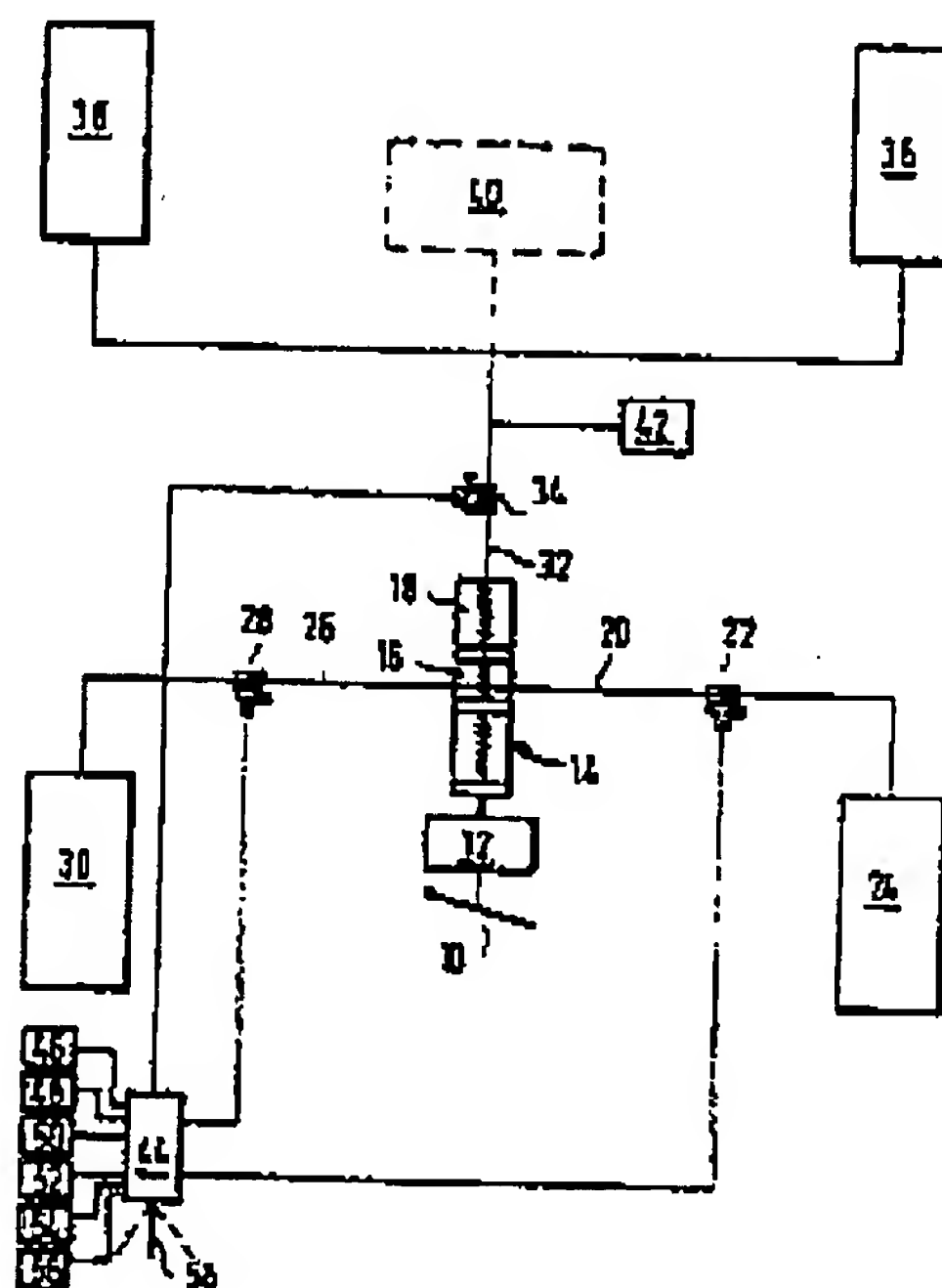
EP0254113 (A2)
EP0254113 (A3)
EP0254113 (B1)

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Abstract not available for DE3625025

Abstract of corresponding document: EP0254113

A valve arrangement (22, 28, 34) connects a main cylinder arrangement (14) to brake cylinder arrangements (24, 36; 30, 38) on both sides of a vehicle in a normal condition. In preselectable blocking conditions, the valve arrangement (22, 28, 34) optionally separates the brake cylinder arrangement (24, 36 or 30, 38) on one or the other vehicle side from the main cylinder arrangement (14). A control device (44) allows the valve arrangement (22, 28, 34) to return to its normal condition when either a predetermined vehicle speed is reached or, after preselection of one of the blocking conditions, a predetermined time interval has elapsed or a higher gear is selected or a particular transverse inclination of the vehicle is exceeded or the steering is returned to straight-ahead running or a trailer is connected.









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Braking system for a steerable vehicle with 2 or more axles with at least rear axle driving.




Patent number: EP0295396
Publication date: 1988-12-21
Inventor: REBHOLZ WALTER; KOZEL PETER DIPL-ING;
BREITLING ULRICH DR ING; KRENNER MANFRED
DIPL-ING; RIECK GERHARD DIPL-ING
Applicant: MAN NUTZFAHRZEUGE GMBH (DE)
Classification:
- **International:** *B60T8/00; B60T8/34; B60T8/48; B60T13/66;
B62D6/04; B62D11/08; B60T8/00; B60T8/34;
B60T8/48; B60T13/66; B62D6/04; B62D11/06; (IPC1-
7): B60T8/24; B62D9/00; B62D11/08; B62D15/00*
- **European:** B60T8/00; B60T8/34F; B60T8/48B2; B60T13/66;
B62D6/04; B62D11/08
Application number: EP19880106567 19880423
Priority number(s): DE19873719821 19870613

Also published as:

 FI882301 (A)
 EP0295396 (A3)
 DE3719821 (A1)
 EP0295396 (B1)
 FI86392C (C)
 FI86392B (B)

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Cited documents:

 GB2136748
 DE2142506
 DE2007097

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Abstract of EP0295396

In a steerable vehicle with two or more axles and with at least rear axle drive, the conventional brake system consisting of service brake device and parking brake device, possibly complemented by an antiblocking system and an antislip control, is assigned an auxiliary brake device for a one-sided braking of the vehicle, the said auxiliary braking device operating in a steering angle-dependent manner. This auxiliary braking device can be actuated as required and, if a predetermined minimum steering angle of the steered wheels is undershot at a driving speed below a specific value, a one-sided braking of the wheel or wheels on the inside of the bend, at least of the driven rear axle or axles of the vehicle, is effected by selective provision of brake pressure. In this way, it is ensured that tight bends are passed through in a track-holding manner following the steering angle to the greatest extent without the vehicle being forced over to the outside of the bend.